Appendix 11

Datasets Used to Generate Table 4, Including Administrative Agency, Website URL, Data Categories, Level II Vital Signs Designation, and Summary

United States Geological Survey *(http://www.ecotrust.org/copperriver/crks_cd/content/data_and_software/metadata/landcov/vegclass_1k.htm)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Land Use/Landcover Change, Vegetation (general)
Vital Sign: Land Use and Cover
Summary: Vegetation map in grid format developed for the state of Alaska by Michael Fleming, USFS/USGS, using using the phenology of a vegetation index (AVHRR/NDVI) collected during the 1991 growing season. 1000 km cell size, scale 1:2,500,000.

Alaska-Yukon Arctic Ecoregional Assessment
The Nature Conservancy *(http://nature.org/wherewework/northamerica/states/alaska/preserves/art13301.html)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Biodiversity, Birds, GIS datasets, Large Mammals, Management Concern, Small Mammals
Vital Signs: Land Use and Cover, At-risk Biota, Focal Species or Communities
Summary: One of the products of the Alaska-Yukon Arctic ecoregional assessment is a map indicating areas of biological significance. Referred to as a portfolio, this map is based on the best available information on the distribution, goals, and viability of selected conservation targets, and it represents areas that, if managed for biodiversity, will likely conserve the native species and ecological communities of the ecoregion. The portfolio is a conservation blueprint – a vision for conservation success – to guide public land managers, conservation organizations, private landowners, and others in conserving natural diversity within the ecoregion. This update describes how we designed a conservation portfolio for the Alaska-Yukon Arctic ecoregion. We address the methods used, the strengths and weaknesses of approaches, and conclusions that can be drawn from the portfolio.

Alaska Department of Fish and Game, Division of Wildlife Conservation
Alaska Department of Fish and Game *(http://www.wildlife.alaska.gov/)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Category: Large Mammals
Vital Signs: Consumptive Use, Focal Species or Communities
Summary: The Division of Wildlife Conservation recognizes wildlife as a public trust belonging to all Alaskans and is an organization of individuals committed to interacting professionally with one another and the public and to using scientific data and public input to conserve Alaska's wildlife.

Alaska Department of Fish and Game: Alaska Freshwater Fish Inventory
Alaska Department of Fish and Game *(http://www.sf.adfg.state.ak.us/SARR/Surveys/index.cfm)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Fish
Vital Sign: Focal Species or Communities
Summary: The Fish Distribution Database/Anadromous Waters Catalog and Atlas (FDD) is the regulatory tool established by statute to specify the various rivers, lakes and streams of the Alaska are important to the spawning, rearing, or migration of anadromous fishes.

Alaska Department of Fish and Game's (ADF&G) Anadromous Streams data
Alaska Department of Fish and Game *(http://www.sf.adfg.state.ak.us/SARR/FishDistrib/FDD_gisdata.cfm)*
Dataset Type: Biological Inventory
Ecological Category: Fish
Vital Sign: Focal Species or Communities
Summary: The Alaska Department of Fish and Game's (ADF&G) Anadromous Streams data is derived from the ADF&G's GIS shapefiles for the "Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes" (referred to as the "Catalog") and the "Atlas to the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes" (referred to as the "Atlas"). It is produced for general visual reference and to aid users in generating various natural resource analyses and products. The data depict the known anadromous fish bearing lakes and streams within Alaska from the mouth to the known upper extent of species usage.

Alaska Landbird Resource Information System
Partners in Flight *(http://www.partnersinflight.org/description.cfm)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Birds
Vital Sign: Focal Species or Communities
Summary: Partners In Flight was launched in 1990 in response to growing concerns about declines in the populations of many land bird species, and in order to emphasize the conservation of birds not covered by existing conservation initiatives. The initial focus was on neotropical migrants, species that breed in the Nearctic (North America) and winter in the Neotropics (Central and South America), but the focus has spread to include most landbirds and other species requiring terrestrial habitats. The central premise of Partners In Flight (PIF) has been that the resources of public and private organizations in North and South America must be combined, coordinated, and increased in order to achieve success in conserving bird populations in this hemisphere. Partners In Flight is a cooperative effort involving partnerships among federal, state and local government agencies, philanthropic foundations, professional organizations, conservation groups, industry, the academic community, and private individuals.

Alaska Natural Heritage Program
Alaska Natural Heritage Program *(http://aknhp.uaa.alaska.edu/Default.htm)*
Dataset Type: Biological Inventory
Ecological Categories: Amphibians, Biodiversity, Birds, Fish, Invasive Species, Large Mammals, Management Concern, Small Mammals, Vascular Plants, Vegetation (general), Vegetation (general)
Vital Signs: At-risk Biota, Invasive Species
Summary: The Alaska Natural Heritage Program (AKNHP) is Alaska's clearinghouse for information on plant and animal species of conservation concern, natural communities of conservation concern, and invasive nonnative plant species. We collect, validate, and distribute this information, and assist natural resource managers and others in applying it effectively.

Arctic Network Biological Inventories
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Birds, Large Mammals, Small Mammals, Vascular Plants
Vital Sign: Focal Species or Communities
Summary: Baseline inventories conducted by the Arctic Network include birds, vascular plants and mammals. These data will be incorporated into the national Inventory & Monitoring data store, NPSpecies in 2005.

Arctic Transitions in the Land-Atmosphere System Climate Stations
Water and Environmental Research Center *(http://www.uaf.edu/water/projects/atlas/proposal.html)*
Dataset Type: Long Term Monitoring
Ecological Category: Climate/ Weather/Climate Change
Vital Sign: Weather
Summary: Originated in 1998 as a logical outgrowth of prior FLUX studies, Arctic Transitions in the Land-Atmosphere System (ATLAS) is a coordinated program to examine the geographical patterns and controls over climate-land surface exchange and develop reasonable scenarios of future change in the Arctic. There are six climate stations for the program located on the Seward Peninsula.

Environmental Protection Agency's Monitoring and Assessing Water Quality website (STORET)
Environmental Protection Agency *(http://www.epa.gov/storet/dbtop.html)*
Dataset Type: Long Term Monitoring
Ecological Categories: Contaminants, Water Quality/ Biota/ Chemistry
Vital Sign: Water Quality
Summary: The U.S. Environmental Protection Agency (EPA) maintains two data management systems containing water quality information for the nation's waters: the Legacy Data Center (LDC), and STORET. The LDC is a static, archived database and STORET is an operational system actively being populated with water quality data.

Forest Insect & Disease Conditions in Alaska
Alaska Department of Natural Resources, Division of Forestry
(http://agdc.usgs.gov/data/projects/fhm/index.html)
Dataset Type: Long-term monitoring (2+ years)
Ecological Category: Disease/Parasites
Vital Sign: Infestations and Disease
Summary: The Forest Insect & Disease Conditions in Alaska dataset represents areas of forest damage due to insect infestation, disease, winter damage, fire, flood, landslides, and windthrow. The information was collected, cooperatively by aerial surveys by both the USFS, Forest Health Protection (FHP) and ADNR, Div. of Forestry. Surveys are conducted primarily in July and August so that pest "signatures" may be identified during the optimal period for symptom development of ocular estimation. The aerial survey is coordinated such that the maximum extent of recent bark beetle damage (fading trees) and insect defoliation (discoloration, foliage loss) patterns may be determined. Aerial survey flights are termed as "local" if they can be completed within 1 day from the survey base and "regional' if more than 1 day is required to complete the survey reconnaissance. Surveys are flown in Southeast Alaska, Southcentral Alaska and Interior Alaska.

Kobuk Landscape Study database
National Park Service
Dataset Type: Biological Inventory
Ecological Category: Land Use/ Landcover Change
Vital Signs: Land Use and Cover, Soil Quality
Summary: The Kobuk Landscape Study was initiated by the National Park Service in 1992 in cooperation with the Natural Resources Conservation Service (then Soil Conservation Service) to collect baseline data on the soils and vegetation in the Kobuk Preserve portion of Gates of the Arctic National Park and Preserve. This information was important in the event a road should be built through the Preserve into the Ambler Mining District to the west of the park. Field work for the project was conducted during the summers of 1992 and 1993 by David K. Swanson of the Soil Conservation Service and Donna L. DeVoe of the National Park Service. Soils and vegetation data were collected from soil pits and area immediately surrounding the pits. Notes on animal activity at these sites were also kept (mostly caribou, voles/small mammals, and birds). An auger and shovel were used to dig sizable soil pits to obtain full description of the soil layers underneath the surface. Pits were dug as deep as possible, reaching to approximately 3-4 feet deep, or to bedrock. At each soil pit, a general description of the vegetation was noted using Viereck's system for classifying vegetation (Viereck et al. 1992. The Alaska Vegetation Classification. Gen. Tech. Rep. PNW-GTR-286. U.S. Dept. of Agriculture, Forest Service). At selected sites, a more detailed description of the vegetation was collected, where all species found within a circumference of about 20m from the soil pit were listed along with an estimate of percent cover for each species. Color infrared aerial photos were used to plan transect locations, and also to mark soil pit locations by pin pricks made in the photos. These pin pricks were later transferred onto paper topographic maps (1:63,360 scale). Soil data were used to delineate regions of soil classes within the Kobuk Preserve Unit on mylar sheets overlaid on topographic maps. These soil classes were later digitized and added to the Park's GIS.

Kobuk Preserve Unit Soils Data Collected in 1992–3 by SCS and NPS
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Soils (Chemistry, Erosion, Contaminants, Etc.)
Vital Sign: Soil Quality
Summary: Field data collected for study undertaken by the Soil Conservation Service (SCS) at the request of the National Park Service (NPS) to provide basic information about the Kobuk Preserve Unit through integrated study of landforms, soils, and vegetation. Fieldwork was completed in 1992-93 by David K. Swanson (SCS) and Donna Devoe (NPS). Data was automated in 1994 by Resource Data, Inc. for the National Park Service, AKSO.

Landcover: 2004 Bering Land Bridge NP and Cape Krusenstern NM
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: Landcover map of Bering Land Bridge National Preserve and Cape Krusenstern National Monument created for the National Park Service showing ecotypes (local-scale ecosystems) that combine physiography (i.e., coastal, riverine, alpine), bedrock geology, topography (DEM modeling), and spectral characteristics of vegetation derived from image processing (ERDAS 8.6). Ecotypes are modeled from supervised spectral classification and vector layers that best partition geomorphic, hydrologic, pedologic, and vegetative characteristics of the area. Map Sources: Landsat TM Images from 28 June 2000, 1 Aug 2002, 3 Aug 2002; Ecological Subsections map from NPS for physiography and bedrock geology; USGS National Elevation Dataset for elevation, slope, and moisture index. Map Projection: Albers Conical Equal Area; NAD 27 datum. Map prepared by ABR, Inc. File: BELA_Ecotype_02-329-7.mxd, 6 October 2004

Landcover Map of Bering Land Bridge National Preserve
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: A 15 class landcover map of the Bering Land Bridge National Preserve and surrounding area produced from Landsat satellite imagery.

Landcover Map of Cape Krusenstern National Monument
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: Landcover map of the Cape Krusenstern area developed in 1991 from thematic mapper satellite imagery by NPS Alaska System Regional Office. Imagery used had 30 meter spatial resolution.

Landcover Map of Gates of the Arctic National Park and Preserve
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: Unfiltered (pixel level) thirty mapping class land cover product from the GAAR Land Cover Mapping Project (1997-1999) completed by Earth Satellite Corporation and Alaska Natural Heritage

Program under contract with National Park Service - Alaska Regional Office (NPS-AKSO) as part of NPS's Land Cover Mapping Program.

Landcover Map of Kobuk Valley National Park
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: A landcover map of Kobuk Valley area was developed in 1994 from Thematic Mapper satellite imagery by the NPS Alaska System Regional Office. The imagery has 30 meter spatial resolution.

Landcover Map of Northwestern Parks
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: A 20 class landcover map for the Northwest Areas parks of Cape Krusenstern, Kobuk Valley and Noatak. Landsat thematic mapper imagery was used. Field observations, aerial photography, and other GIS data were used to refine the map.

National Atmospheric Deposition Program/National Trends Network Monitoring Location AK99
National Atmospheric Deposition Program *(http://nadp.sws.uiuc.edu/sites/siteinfo.asp?net=NTN&id=AK99)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Categories: Air Chemistry, Biogeochemical Processes, Contaminants
Vital Signs: Air Quality, Weather, Non-point Source Human Effects
Summary: The National Atmospheric Deposition Program/National Trends Network Monitoring in cooperation with the National Park Service set up an air chemistry monitoring station near Ambler in May 2004.

National Snow and Ice Data Center
National Snow and Ice Data Center *(http://nsidc.org/data/)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Category: Climate/ Weather/Climate Change
Vital Signs: Hydrology, Weather
Summary: NSIDC is part of the University of Colorado Cooperative Institute for Research in Environmental Sciences, and is affiliated with the National Oceanic and Atmospheric Administration National Geophysical Data Center through a cooperative agreement. NSIDC serves as one of eight Distributed Active Archive Centers funded by the National Aeronautics and Space Administration to archive and distribute

data from NASA's past and current satellites and field measurement programs. NSIDC also supports the National Science Foundation through the Arctic System Science Data Coordination Center and the Antarctic Glaciological Data Center.

North America Landcover Characteristics Data Base Version 2.0
National Aeronautics and Space Administration *(http://edcdaac.usgs.gov/glcc/nadoc2_0.asp - data)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Category: Land Use/ Landcover Change
Vital Sign: Land Use and Cover
Summary: The Land Processes Distributed Active Archive Center (LP DAAC) was established as part of NASA's Earth Observing System (EOS) Data and Information System (EOSDIS) initiative to process, archive, and distribute land-related data collected by EOS sensors, thereby promoting the inter-disciplinary study and understanding of the integrated Earth system.

North American Breeding Bird Survey
United States Geological Survey *(http://www.pwrc.usgs.gov/bbs/)*
Dataset Type: Historical inventory or monitoring data with adequate documentation
Ecological Category: Birds
Vital Sign: Focal Species or Communities
Summary: The North American Breeding Bird Survey (BBS) is a cooperative effort between the U.S. Geological Survey's Patuxent Wildlife Research Center and the Canadian Wildlife Service's National Wildlife Research Centre to monitor the status and trends of North American bird populations. Following a rigorous protocol, BBS data are collected by thousands of dedicated participants along thousands of randomly established roadside routes throughout the continent. Professional BBS coordinators and data managers work closely with researchers and statisticians to compile and deliver these population data and population trend analyses on more than 400 bird species, for use by conservation managers, scientists, and the general public.

Northwest Arctic Alaska Environmental Sensitivity Index Maps
National Oceanic and Atmospheric Administration *(http://response.restoration.noaa.gov/esi/esiintro.html)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: At-Risk Populations/ Biota, Land Use/Landcover Change, Management Concern
Vital Sign: Point-Source Human Effects
Summary: The most widely used approach to sensitive environment mapping in the United States is NOAA's Environmental Sensitivity Index (ESI). This approach systematically compiles information in

standard formats for coastal shoreline sensitivity, biological resources, and human-use resources. ESI maps are useful for identifying sensitive resources before a spill occurs so that protection priorities can be established and cleanup strategies designed in advance. Using ESIs in spill response and planning reduces the environmental consequences of the spill and cleanup efforts.

NPS FirePro Dataset
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Fire
Vital Sign: Fire
Summary: The fire effects paired plot project began in 1983 under the direction of Gary Ahlstrand – NPS Alaska Regional Research Ecologist. Fire staff established paired vegetation plots in burned and representative unburned habitat adjacent to the burned areas of varying ages. Some plots were established in front of active wildfires. Between 1983 to 1988, approximately 485 plots were installed across 9 different parks in Alaska. A total of 159 plots were established in the Arctic Network. Some of the plot locations were permanently marked, it is unknown how many plots were permanently marked in the Arctic Network Parks. Plot data collected include: photographic slides of plot, density of trees and tall shrubs (Betula, Salix and Alnus) by diameter size class and species on 15-m x 30-m quadrats, vegetation cover class for 30 Daubenmire frames (20 x 50 cm), tree cores/cookies, fuels and soils data (on some plots), and general plot location descriptions. Some of the plot data in the ARCN network have been entered into a database and plot locations have been digitized off of hard-copy maps for NOAT and KOVA. FirePro Ground Truth and Intensive Mapping Areas/Units Fire staff collected vegetation data from sites throughout the ARCN during the late 1980s and early 1990s. Vegetation type and percent cover, landform, drainage, slope, aspect, and soils data were collected for two types of sites: Intensive Mapping Areas/Units (IMAs/IMUs) polygons and Ground Truth (GT) sites. The site locations were selected from aerial photographs that would provide representative vegetation types for mapping. Ground truth sites were assessed from the ground and aerially. Intensive Mapping Areas were polygons that were assessed from the air. Photos were taken for almost all of the plots. Plot locations were digitized and the data set has been entered into an Access database and is available as an ArcView to Access Field Data Viewer. These data were used to create final land cover maps for the GIS Thematic Mapper Landcover Mapping Project. Table 1 lists the number of sites for each park. Additional Fire Effects Plots Between 1978-1982 Chuck Racine and his colleagues established a series of plots for monitoring vegetation and permafrost recovery post fire in Noatak National Preserve and Bering Land Bridge National Preserve. In

2001–02, Racine and co-workers re-sampled the Imuruk Lake plots in Bering Land Bridge NP. During 1981 and 1982, eight tundra post-fire plot sites were established in the Noatak NP in burned areas of varying ages, ranging from 2-4 wks post fire, 4-5 years and 10 years post fire (1972, 1977 and 1982 fires). In addition, NPS fire staff established 6 plots in 2004 on the Uvgoon Creek Fire in Noatak. As part of the Arctic Network Inventory & Monitoring Program, Racine and NPS personnel propose to relocate and resample the Noatak fire plots established in 1981-82 and newly established plots by NPS staff in 2004. Re-measurements of the plots during the summer of 2005 would provide a 33-, 28-, 23- and 1-year comparative perspective on vegetation and permafrost recovery post fire in Noatak. Data collected included (1) vertical ocular estimates of species cover, height, stem density in ten 1-m x 1-m plots at each site, (2) biomass, production and fuel estimates made by clipping all above ground plant material in 32 cm diameter rings (804 cm2) (4-6 rings per site), (3) measurement of thaw depths, (4) shrub density, (5) photos.

NPS Historic Fire Boundaries Dataset
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Fire
Vital Sign: Fire
Summary: Coverage containing historic ignition points of fires that have burned within park boundaries from 1956 to 2004. Data were compiled from Alaska Fire Service, BLM and the State of Alaska Department of Forestry (DoF), and National Park Service park records. Point coordinates were recorded on Fire Report sheets and are of variable quality.

NPS Lakes Inventory
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Lake Features & Processes, Wetland (distribution and abundance)
Vital Sign: Hydrology
Summary: Statewide lakes were assembled from seventeen separate files in the USGS 1:2,000,000 Digital Line Graphs (DLG) dataset and include only those polygons with AREA greater than 20 acres (80940 square meters).

NPS Natural Large Mammal Surveys
National Park Service
Dataset Type: Long-term monitoring (2+ years)
Ecological Category: Large Mammals
Vital Signs: Focal Species or Communities, Consumptive Use
Summary: The National Park Service monitors populations of large mammals annually in the western arctic parklands and Gates of the Arctic National Park and Preserve. Monitored species include Moose, Sheep and Muskox. Some historical surveys exist for other mammals such as wolf and wolverine.

NPS Surficial Geology Dataset
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Geology
Vital Sign: Geomorphology
Summary: Geology information for the Arctic Network is available through the Alaska Region spatial data stack. Information is available for GAAR, Kobuk River Basin and Kobuk Dunes.

Red Dog Mine Site Air Monitoring
Teck Cominco *(http://arcticcircle.uconn.edu/SEEJ/RedDog/alaska_dec/reporttext.pdf)*
Dataset Type: Long Term Monitoring
Ecological Category: Air Chemistry
Vital Sign: Air Quality
Summary: Teck Cominco conducts several types of air monitoring in the mine area to evaluate the effectiveness of operational controls in minimizing emissions, and to ensure compliance with their air permit. This monitoring includes EPA Methods 22 and 9. EPA Method 22 is a visible dust emission evaluation method that measures the absence or presence of dust over a period of time. Method 9 measures the opacity of a source. All samplers were operated for sampling periods of approximately 24 hours every other day, and monitoring data was submitted to DEC monthly.

Remote Automated Weather Stations (RAWS)
National Interagency Fire Center (NIFC) *(http://raws.wrh.noaa.gov/roman/)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Categories: Climate/ Weather/Climate Change, Fire
Vital Sign: Weather
Summary: There are nearly 1,500 interagency Remote Automated Weather Stations (RAWS) strategically located throughout the United States and are managed by the National Interagency Fire Center (NIFC). Weather data assists land management agencies with a variety

of projects – monitoring air quality, rating fire danger, and providing information for research applications.

SNOTEL Data Network
NRCS National Water and Climate Center *(http://www.wcc.nrcs.usda.gov/snotel/Alaska/alaska.html)*
Dataset Type: Long Term Monitoring
Ecological Category: Climate/ Weather/Climate Change
Vital Sign: Weather
Summary: The National Water and Climate Center provides real-time Snow and climate data using automated remote sensing from sites in the mountainous regions of the Western United States. Here you will find state and site specific data, maps and graphs showing snow water equivalent, snow depth, precipitation, temperature and other climatic elements in hourly, daily, monthly and yearly increments. These products are used for forecasting and management of water supplies.

Soil Survey Tabular Database for Kobuk Preserve Unit, Gates of the Arctic National Park, Alaska
NRCS National Water and Climate Center *(http://soildatamart.nrcs.usda.gov/Metadata.aspx?Survey=AK648&UseState=AK)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Soils (Chemistry, Erosion, Contaminants, Etc.)
Vital Signs: Soil Quality, Land Use and Cover
Summary: This tabular data set contains estimated and measured data on the physical and chemical soil properties, soil interpretations, and static and dynamic metadata. The static tabular metadata documents the underlying data structure, independent of the actual data contained in an export. The static tabular metadata table names are mdstatdomdet, mdstatdommas, mdstatidxdet, mdstatidxmas, mdstatrshipdet, mdstatrshipmas, mdstattabcols, and mdstattabs. The dynamic metadata documents the contents of a particular export. The dynamic metadata table names are distinterpmd, distlegendmd, and distmd. The structure of the static and dynamic metadata tables can be viewed online via the URL listed in the Online_Linkage element above. Most tabular data exist in the database as a range of soil properties, depicting the range for the soil survey area. Data are obtained from a combination of field observations, site descriptions and transects, and laboratory analyses. In making the soil survey, soil scientists observed landforms and landscape features, such as the steepness, length, and shape of slopes; the general pattern of drainage; the kinds of crops and native plants growing on the soils; and the kinds of bedrock. They observed and studied many soil profiles. Samples of some of the soils in the area were collected for laboratory analyses and for engineering tests. Soil boundaries were drawn on the soil maps and a locally tailored tabular data base was constructed, based on those observations and the resulting landscape model the soil

scientist developed. These data can be used with their companion field maps. Contact the U.S. Department of Agriculture, Natural Resources Conservation Service State Soil Scientist for additional information.

Soils: Kobuk River Basin
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Soils (Chemistry, Erosion, Contaminants, Etc.)
Vital Sign: Soil Quality
Summary: As part of an interagency agreement between the National Park Service (NPS) and the U.S. Geological Survey (USGS), basin characteristics are being determined for a number of watersheds in National Parks of Alaska. Many of the characteristics are being determined by use of Geographical Information Systems (GIS). GIS coverages are being made available to other interested parties.

Spatial patterns of cadmium and lead deposition on and adjacent to National Park Service lands near Red Dog Mine, Alaska:
National Park Service
Dataset Type: Non-inventory or monitoring dataset
Ecological Categories: Contaminants, Human Use Activities (Subsistance, Cultural Eutrophication, Mining), Vegetation (general)
Vital Signs: Air Quality, Point-Source Human Effects
Summary: The National Park Service (NPS) in cooperation with Teck Cominco Alaska Incorporated (TCAK), the NANA Regional Corporation (NANA), and the Alaska Industrial Development and Export Authority (AIDEA) has released the NPS manuscript entitled: Spatial patterns of cadmium and lead deposition on and adjacent to National Park Service lands in the vicinity of the Red Dog Mine, Alaska by L. Hasselbach, et al. This research identified elevated levels of lead, cadmium and zinc in mosses collected during 2001 from throughout Cape Krusenstern National Monument and adjacent areas. The Monument is located to the north of Kotzebue, Alaska. The metals are likely associated with dust from the ore concentrate hauling and storage operations of the Red Dog Mine. The National Park Service is required by law to protect natural and healthy ecosystems. The ecological effects of artificially elevated cadmium and lead levels on the Monument are still being assessed; however, the State of Alaska Department of Health & Social Services, Division of Public Health has concluded that the metals found in plants used for subsistence near Red Dog Mine, Alaska do not pose a public health hazard.

Surficial Deposits of the Kobuk Sand Dunes
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Windblown Features and Processes (Dunes)
Vital Sign: Geomorphology
Summary: National Park Service dataset. Contains digitized polygons representing geomorphological units and an inventory of dune ridges in Kobuk National Park.

The Circumpolar Arctic Vegetation Map
University of Alaska Fairbanks *(http://www.geobotany.uaf.edu/cavm/abstract.html)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Vascular Plants
Vital Sign: Land Use and Cover
Summary: The Circumpolar Arctic Vegetation Map (CAVM) shows the types of vegetation that occur across the Arctic, between the ice-covered Arctic Ocean to the north and the northern limit of forests to the south. Environmental and climatic conditions are extreme, with a short growing season and low summer temperatures. The region support plants such as dwarf shrubs, herbs, lichens and mosses, which grow close to the ground. As one moves southward (outward from map's center in all directions), the amount of warmth available for plant growth increases considerably. Warmer summer temperatures cause the size, abundance, and variety of plants to increase. Climate and other environmental controls, such as landscape, topography, soil chemistry, soil moisture, and the available plants that historically colonized an area, also influence the distribution of plant communities (see other side).

U.S. Fish & Wildlife Service Wetlands Inventory
US Fish & Wildlife Service *(http://wetlands.fws.gov/)*
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Land Use/ Landcover Change, Wetland (distribution and abundance)
Vital Sign: Water Quality
Summary: Welcome to the National Wetlands Inventory (NWI). We produce and provide information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats and other wildlife habitats.

USGS Alaska Science Center, Water Resources
United States Geological Survey *(http://alaska.usgs.gov/water.html)*
Dataset Type: Long-term monitoring (2+ years)
Ecological Categories: Lake Features & Processes, Stream/ River Channel Characteristics & Hydrology, Water Quality/ Biota/Chemistry
Vital Sign: Hydrology
Summary: The National mission of the U.S. Geological Survey's Water Resources Discipline is to provide the hydrologic information and understanding needed for wise use and management of the Nation's water resources. For about 100 years, the U.S. Geological Survey has studied the occurrence, quantity, quality, distribution, and movement of the surface and ground water that composes the Nation's water resources. As the principal Federal water-data agency, the Geological Survey collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. This nationwide program, which is carried out through the Water Resources Discipline's 48 Water offices and four Regional offices, includes the collection, analysis, and dissemination of hydrologic data and water-use information, areal resource appraisals and other interpretive studies, and research projects. Much of this work is a cooperative effort in which planning and financial support are shared by State and local governments and other Federal agencies.

USGS Hydrography Dataset
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Categories: Stream/ River Channel Characteristics & Hydrology, Wetland (distribution and abundance)
Vital Sign: Hydrology
Summary: Hydrography data is based on the USGS Digital Line Graph maps (DLG optional format)at a scale of 1:63,360. Minimum mapping unit for polygons is 50 acres. As part of a combined effort between USGS, BLM, and other agencies, the hydrography DLG files have been revised using 1977- 1985 aerial photography. DLG coverages have been converted to ARC/INFO coverages, and projected to the Alaska Albers projection by the NPS GIS Team. Coverages have been split into polygon and line coverages, depending upon the physical feature.

Wetlands: Kobuk River Basin
National Park Service
Dataset Type: Short-term comprehensive inventory (1 to 2 years)
Ecological Category: Wetland (distribution and abundance)
Vital Sign: Hydrology
Summary: As part of an interagency agreement between the National Park Service (NPS) and the U.S. Geological Survey (USGS), basin characteristics are being determined for a number of watersheds in National Parks of Alaska. Many of the characteristics are being determined by use of Geographical Information Systems (GIS). GIS coverages are being made available to other interested parties.